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15 July 2003

## MISSIONER FOR PATENTS

Box 1450 -

Alexandria, Virginia 22313-1450

Application No.:
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10/056,154

Confirmation No.:

2279

First Named Inventor:

Fortin, Vincent

Filing Date:

23 January 2002

Group Art Unit: Atty. Docket No.: 2823

Examiner:

Lee, Hsien Ming

Title:

M-12524 US

Cobalt Silicide Fabrication Methods That Use Protective Titanium Layers

Assignee(s):

Mosel Vitelic, Inc.

Sir:

Transmitted herewith are the following documents for the above patent application:

- (1) Return Receipt Postcard;
  - (2) This Transmittal Letter (in duplicate);
- (3) Amendment (13 pp.);
- (4) Annotated Paragraphs (2 p.);
- (5) Annotated Claims (2 p.).; and
- (6) Copy of Assignment (2 pp.).

 $\boxtimes$ The fee has been calculated as shown below: TECHNOLOGY CENTER 2800

## **CLAIMS AS AMENDED**

Highest No. Claims Remaining Previously Present Rate After Amendment Paid For Extra Additional Fee **Total Claims** 34 Minus 24 10 \$18.00 180.00 Independent 2 Claims Minus 3 \$84.00 \$ 0.00 Fee of \$280 for the first filing of one or more multiple dependent claims \$ Fee for Request for Extension of Time ( \$ month(s)) \$ Fee for \$ Total additional fee for this Amendment: 180.00  $\boxtimes$ \$ Please charge Deposit Account No. 502641 in the amount of 180.00  $\boxtimes$ Conditional Petition for Extension of Time: If an extension of time is required, the Commissioner is authorized to deduct the necessary fee from Deposit Account No. 502641.  $\boxtimes$ Also, charge any additional fees required and credit any overpayment to Deposit Account No. 502641. Enclosed is a check in the amount of

**EXPRESS MAIL LABEL NO.:** 

EV 337 115 526 US

Respectfully submitted,

Ronald J. Meetin

Attorney for Applicant(s)

Reg. No. 29,089

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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Layers

Assignee(s):

PO Box 1450

Mosel Vitelic, Inc.

Mountain View, California

COMMISSIONER FOR PATENTS

Alexandria, Virginia 22313-1450

**AMENDMENT** 

Sir:

Responsive to the Office Action mailed 15 April 2003, please amend the above patent application as follows:

## IN THE SPECIFICATION

Amend paragraphs 8, 32, and 35 to read:

Ronald J. Meetin Attorney at Law 210 Central Avenue Mountain View, CA 94043-4869

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[8000] In some embodiments of the invention, the titanium is deposited by ionized physical vapor deposition ("ionized PVD"). An ionized PVD chamber includes an induction coil positioned between the titanium target and the wafer. The coil is energized with an AC current to densify the plasma in the chamber. As the sputtered titanium atoms move towards the wafer, some of the titanium atoms become ionized due to the coil energy. The pedestal holding the wafer is also biased with an AC current to attract the titanium ions and cause them to approach the wafer at an angle closer to 90°. See "Handbook of Semiconductor Manufacturing Technology" (edited by Yoshio Nishi et al., 2000), pages 406-407, incorporated herein by reference. Better step coverage is achieved at the bottom of the

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2003-07-15 Amend.doc

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Appl'n. No.: 10/056,154